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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,374	08/27/2001	Hidehisa Shimizu	JP920000283US1	2087

877 7590 05/23/2003

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EXAMINER

CHUNG, DAVID Y

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 05/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/682,374

Applicant(s)

SHIMIZU ET AL.

Examiner

David Y. Chung

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-6 rejected under 35 U.S.C. 102(e) as being anticipated by Kim (U.S. 6,177,970).

As to claim 1, Kim discloses an in-plane switching mode liquid crystal display having gate and signal lines arrayed in a matrix on one substrate. See figures 1 and 2. Note in figure 2, the common electrode 310 being arranged above gate line 20 and signal line 70 with insulating layer 80 interposed between. Note in figure 1, the pixel electrode comprising first electrode 720 and second electrode 40, electrically connected to each other through insulating layer 80 by contact 810.

As to claim 2, also see figures 1 and 2 of Kim. Note in figure 1, the pixel electrode 40 is arranged in an intermediate position between two adjacent common electrodes 310. The pixel electrode is provided with a first electrode 40 arranged in the

same layer as common electrode 310 and a second electrode 720 arranged in the same layer as signal line 70 with the first and second electrodes being electrically connected through an insulating layer 80 by contact 810.

As to claim 3, the common electrode comprises a common line 30, which overlaps signal line 30 in the thickness direction of the display panel as shown in figure 1 of Kim.

As to claim 4, a portion of electrode 40 overlaps a portion of electrode 720 when viewed from above, as shown in figure 1 of Kim. Insulating layer 80 is interposed between.

As to claim 5, electrode 40 is extended over substantially the full length of the pixel in the direction of the signal line when viewed from above, as shown in figure 1 of Kim.

As to claim 6, electrode 720 is connected to a TFT for controlling the drive voltage to the pixel electrodes, as shown in figure 1 of Kim.

2. Claims 7-11 rejected under 35 U.S.C. 102(e) as being anticipated by Yanagawa et al. (U.S. 6,552,770).

As to claim 7, Yanagawa et al. discloses an in-plane switching type liquid crystal display device. See figure 1. Note the gate line 2, signal line 3, pixel electrode 5 and counter electrode 4A. Pixel electrode 5 contains horizontal portions formed over counter voltage line 4. These portions are considered to be shielding electrodes. Since the shielding electrodes are electrically connected to the pixel electrodes, their electrical potentials are the same.

As to claim 8, according to figure 1 of Yanagawa et al., the counter electrodes 4A are closer to the signal lines 3 than the pixel electrodes or shielding electrodes.

As to claim 9, according to figure 1 of Yanagawa et al., both the pixel electrodes and counter electrodes have a bent shape.

As to claims 10 and 11, according to figure 1 of Yanagawa et al., a storage capacitor is provided by the overlap of the shielding electrodes and the counter voltage line. Bent portions of the counter electrodes 4A at both sides of the pixel electrode are mutually linked by counter voltage line 4.

3. Claims 12 and 13 rejected under 35 U.S.C. 102(e) as being anticipated by Komatsu (U.S. 6,335,770).

As to claim 12, Komatsu discloses an in-plane switching mode LCD with specific arrangement of common bus line, data electrode, and common electrodes. See figures 2a, 2b, and 2c. Note the common electrode 109 arranged on outer peripheral portions of the pixel regions, pixel electrodes 108 for generating electric fields parallel to the substrates, and common bus line 103. Komatsu discloses that the common electrode 109 is formed to be parallel to the data electrode 108 and overlap gate and data bus lines. See column 4, lines 14-20. Although Komatsu does not teach signal line and gate line drive circuits, these elements are inherent, as the device of Komatsu would not function otherwise. The common bus line 103 is considered a shield portion since it would perform some form of electrical shielding.

As to claim 13, figure 2a of Komatsu shows common bus line 103 overlapping a portion of pixel electrode 108.


Allowable Subject Matter

4. Claim 14 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: none of the prior art taught or suggested the in-plane switching liquid crystal display of claim 13, wherein the signal lines are arranged in the same layer as the shield portions.

C nclusi n

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (703) 306-0155. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.


SUPERVISOR
12/1/2000